

ER Site Inspections – 1st Quarter 2009

St. Juliens Creek Annex, Chesapeake, Virginia

PREPARED FOR: Walt Bell/NAVFAC Mid-Atlantic
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DATE: April 7, 2009

Introduction

This technical memorandum summarizes the results of the inspections conducted at the active Environmental Restoration (ER) sites at St. Juliens Creek Annex (SJCA) on March 25, 2009.

The active Installation Restoration (IR) sites consist of:

- Site 2 – Waste Disposal Area B
- Site 5 – Burning Grounds
- Site 21 – Industrial Area

The active Munitions Response (MR) site is UXO 001 – Wharf Area Sediments.

The following sections summarize the results of the inspections, identify the potential concerns observed, and provide recommendations for resolution by site. The site-specific inspection checklists are included as an attachment.

IR Site 2 – Waste Disposal Area B

At the time of the inspection, there were no signs of unauthorized intrusive activities within the site or in the vicinity. Soil disturbances caused by tire ruts were observed in the field adjacent to the former investigation-derived waste (IDW) staging area. This area should be assessed during the next quarterly site inspection to ensure vegetative re-growth.

Several drums of IDW were observed on the site. The drums contain IDW generated by CH2M HILL during groundwater sampling activities at Site 21 and by Geosyntec during implementation of the Environmental Security Technology Certification Program (ESTCP) project at Site 21. Six drums, one of which was empty, were located in the former IDW staging area. Several pallets (associated with previous drum containments) were also observed in the area and need to be removed. Three drums, two of which were empty, were staged at the new IDW staging area, located in the northern portion of the site on the foundation of former Building 278/279. All drums were staged in secondary containment and properly labeled.

Concrete and wood debris, observed during previous inspections, remain in the wooded areas of the site. Miscellaneous debris; including a couch, a box, wood, and bottles, also observed during previous inspections, remain on the eastern edge of the site near the IDW staging area.

All of the Site 2 monitoring wells, including casings, bollards, and locks, were in good condition, with the exception of monitoring well SJS02-MW12S. The flanges for the flush-mount well casing of SJS02-MW12S are damaged, prohibiting bolts from functioning properly, and replacement is recommended during future site activities. The signs indicating the site boundary were in good condition; however, they need to be updated with the correct contact phone number.

IR Site 5 – Burning Grounds

At the time of the inspection, there was evidence of recent intrusive activities within the site. These activities are associated with the ongoing removal action. Erosion and sediment controls are in place and functioning for the disturbed areas. The silt fence around portions of the waste/burnt soil area is falling down and should be repaired prior to initiation of land-disturbing activities. No dumping of chemicals was observed within the site or in the vicinity. An empty drum was observed near the radio tower in front of Building 1456.

Only monitoring well SJS05-MW05S was inspected, all other monitoring wells fall within a restricted access area due to the munitions and explosives of concern (MEC) encountered at the site. Monitoring well SJS05-MW05S, including the casing, bollards, and lock, was in good condition. The signs indicating the site boundary were in good condition, with the exception of a sign on the eastern boundary of the site that was removed during the removal action. The phone number on the signs needs to be updated with the correct contact phone number.

IR Site 21 – Industrial Area

At the time of the inspection, evidence of intrusive activities was observed within the site boundary. Two open excavations, also noted during previous site inspections, were present in the vicinity of the former location of Building 201. The northern excavation (approximately 12' x 8' x 5'), noted during the first IR site inspections conducted during the second quarter 2005, and southern excavation (approximately 4' x 4' x 8'), first noted during the first quarter 2006 inspection, appeared to be in similar condition as during the previous inspection. Both excavations contained vegetation and standing water. Facility Operations personnel have indicated that the excavations are a result of ongoing storm sewer line repairs and will be backfilled when repairs are complete. The extent of the northern excavation will not change, but the southern excavation will be extended approximately 20 feet west into the parking lot towards Building 1556 to repair the drop inlet and connected piping. The excavations are located in an area of groundwater contamination. The existing groundwater and storm water analytical data, and a comparison of the groundwater data to non-hazardous disposal criteria were provided to the NAVFAC Mid-Atlantic Remedial Project Manager (RPM). The RPM will coordinate with Facilities Operations as necessary through the remaining repair activities.

An ESTCP study was observed being conducted in the vicinity of former Building 201. Groundwater sampling activities were ongoing at the time of the site inspection. Good housekeeping practices were observed and no concerns were identified.

The 55-gallon steel drum previously observed in the southeast corner of the site near Building 68 was no longer present. However, a larger drum was located in the same location and appeared to be used as an overpack for the previously identified drum. It was labeled as “Kerosene and Water” and noted “leaking 55-gallon drum overpacked into 85-gallon drum”. The overpack was observed to be in good condition. No additional containment was needed. Facility Operations personnel was contacted to inspect and have the drum properly labeled and/or disposed of and will notify the RPM of the drum’s contents.

Miscellaneous construction and wood debris were observed throughout the site, but are expected due to the industrial use of the site. All of the Site 21 monitoring wells were in good condition. The signs indicating the site boundary were in good condition; however, they need to be updated with the current contact phone number.

MRP Area UXO 001 – Wharf Area Sediments

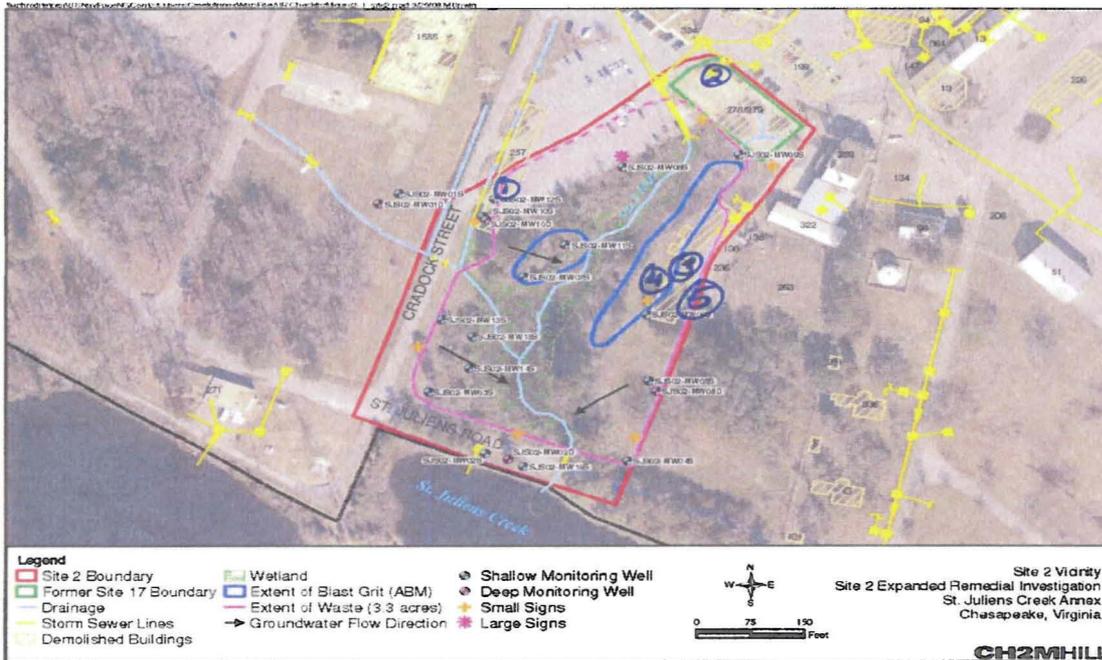
No intrusive activities, IDW, or abnormal debris were observed at the site during the inspection. The signs indicating the site boundary were in good condition; however, they need to be updated with the current contact phone number and to reflect the new site information (i.e., MR Site UXO 1 instead of IR Site 20). When updating the signs, placement of signs in the vicinity of the southern wharf area should be considered.

Site 2 - Waste Disposal Area B

St. Juliens Creek Annex, Chesapeake, Virginia

Description: Site 2 is an unlined waste disposal area, covering approximately 5.7 acres, located at the corner of St. Juliens Drive and Cradock Street in the southwestern portion of the Annex. The waste disposal area began operating in 1921. Initially, refuse was burned onsite and was used to fill an adjacent swampy area. In 1942, an incinerator was installed and replaced the open burning practices. The waste disposal area was closed sometime after 1947. Garbage, acids, and waste ordnance were reportedly disposed of at Site 2. Site 2 also contains abrasive blast media (ABM) from ship overhaul and repair operations. In 1989, the site was used for storage of heavy equipment and machinery, including storage of tools, tires, and machinery in sheds and trailers. In the north, Site 2 encompasses the former Site 17, which consisted of a concrete storage pad located just outside Building 279. The building was used as a fork lift maintenance shop. Buildings 278/279 were demolished in 2003 and the concrete slab remains in-place.

Site 2 is currently a swampy area covered with brush, trees, and grass. A water body directly connected to St. Juliens Creek is located in the center of Site 2. This inlet from the creek is tidally influenced and drains surface water from adjoining land, including Site 2, into the creek. Construction debris (concrete and brick), as well as ABM, are visible at the site. There are signs posted around the perimeter of the site.



Comments: (Provide related question number for each comment)

① BOLTS MISSING FROM MW 125 - QUESTION 4
 ② IDW STAGED IN SECONDARY CONT. 3 DRUMS - 2 EMPTY, 1 MARKED AS GEOSYNTEC IDW.
 ③ FORMER IDW STAGING AREA. 6 DRUMS STILL HERE, 3 MARKED AS GEOSYNTEC IDW, 2 AS CHRM HELL IDW, AND 1 EMPTY DRUM. ALL DRUMS ARE IN SECONDARY CONTAINMENT. STACK OF PALLETS NEXT TO IDW NEEDS TO BE REMOVED.
 ④ TREE KUTS APPROX. 8" DEEP THROUGH THIS AREA - QUESTION 3
 ⑤ DEBRIS OBSERVED (COUCH, WOOD, BOTTLES, ETC) - QUESTION 1

General Questionnaire

- 1 Is the area free of any indication of recent and/or current intrusive activities within the site boundary, as depicted on the figure, or in the immediate vicinity of the site? If no, mark location of intrusive activities on figure, note extent and purpose.
- 2 Is the area free of storage of any investigative derived waste (IDW) on site? If no, mark location of IDW on figure, note its condition in the comment section above, and notify activity coordinator. Indicate if IDW is properly labeled, per example below
 Investigative Derived Waste
 Purge water from Site 2
 January 28, 2007
 Do not handle, analysis pending
 Contact Tim Reich, NAVFAC MID LANT, (757) 444-6890
- 3 Is the area free of identifiable concerns, such as, signs of dumping of chemicals or debris, with regards to this site? If no, annotate these concerns in the comments section above, mark location of concern on map, and notify activity coordinator

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Site Specific Questionnaire

- 4 Are site monitoring wells, as depicted on the figure, in good condition and appear to be locked? (i.e. damaged protective posts and/or well head/casing) If no, describe condition of the deficient monitoring well(s), mark location of deficient monitoring well(s)
- 5 Are the signs, in good condition (letters visible, and standing upright)? If no, describe condition of the signs, mark location(s) on map, and notify activity coordinator.

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Inspection performed by: (Print and sign)

ADAM FORSHEY

Adam Forshey

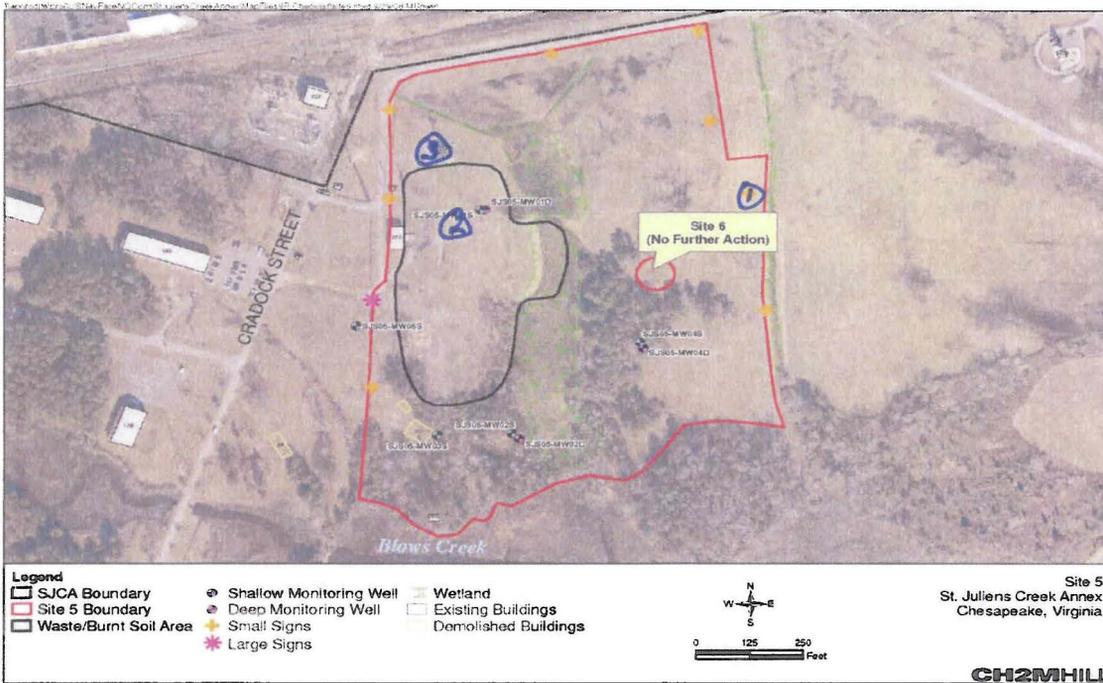
Date: 5/25/09

Site 5 - Burning Grounds

St. Juliens Creek Annex, Chesapeake, Virginia

Description: Site 5 is the former Burning Grounds consisting of approximately 23 acres adjacent to Craddock Street in the northern portion of the Annex. The site is located on fill material that reportedly originated from the Southern Branch of the Elizabeth River. The exact start and closure dates of the Burning Grounds are unknown, although it reportedly operated between the 1930s and 1970s, during which time waste ordnance materials were disposed by open burning. In 1977, the ground surface at Site 5 was burned with straw, diced, and burned again in an effort to remediate the soil. Wastes disposed include ordnance materials such as black powder (mixture of charcoal, nitrate, and sulfur), smokeless powder (nitrocellulose), Explosive D (ammonium picrate), Composition A-3 (contains RDX and wax), tetryl, trinitrotoluene (TNT), and fuzes. Other wastes consisted of carbon tetrachloride, trichloroethene, paint sludge, pesticides, and various types of refuse. The amount of ordnance disposed varied from year to year and there is insufficient information to calculate waste volume.

The site currently consists of an open field with the central portion overgrown with phragmites. A significant portion of the southwest area of the site is covered with a layer of gravel. Surface water at Site 5 drains either naturally or through unlined shallow man-made drainage ditches to tidally influenced Blows Creek, which eventually meets with the Southern Branch of the Elizabeth River. There are signs posted around the perimeter of the site.



Comments: (Provide related question number for each comment)

① SIGN MISSING - ON GROUND - QUESTION 5
 ② SIGNS OF REMOVAL ACTION - QUESTION 1
 ③ DRUM IN FRONT OF BUILDING 1456, POSSIBLY EMPTY BUT LABELED AS "20% (PHRYSOZITE?) 'ACM - NON FRIABLE' SJCA - 2/17/09 NAVFAC - SITE 5"
 NOTE: WELLS WITHIN SITE NOT INSPECTED DUE TO EXPLOSIVE SAFETY HAZARDS ASSOCIATED WITH THE SITE.

General Questionnaire

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- 2 Is the area free of storage of any investigative derived waste (IDW) on site? If no, mark location of IDW on figure, note its condition in the comment section below, and notify activity coordinator. Indicate if IDW is properly labeled, per example below
 Investigative Derived Waste
 Purge water from Site 5
 January 28, 2007
 Do not handle, analysis pending
 Contact Tim Reisch, NAVFAC MID LANT, (757) 444-6890 Yes No
- 3 Is the area free of identifiable concerns, such as, signs of dumping of chemicals or debris, with regards to this site? If no, annotate these concerns in the comments section above, mark location of concern on map, and notify activity coordinator. Yes No

Site Specific Questionnaire

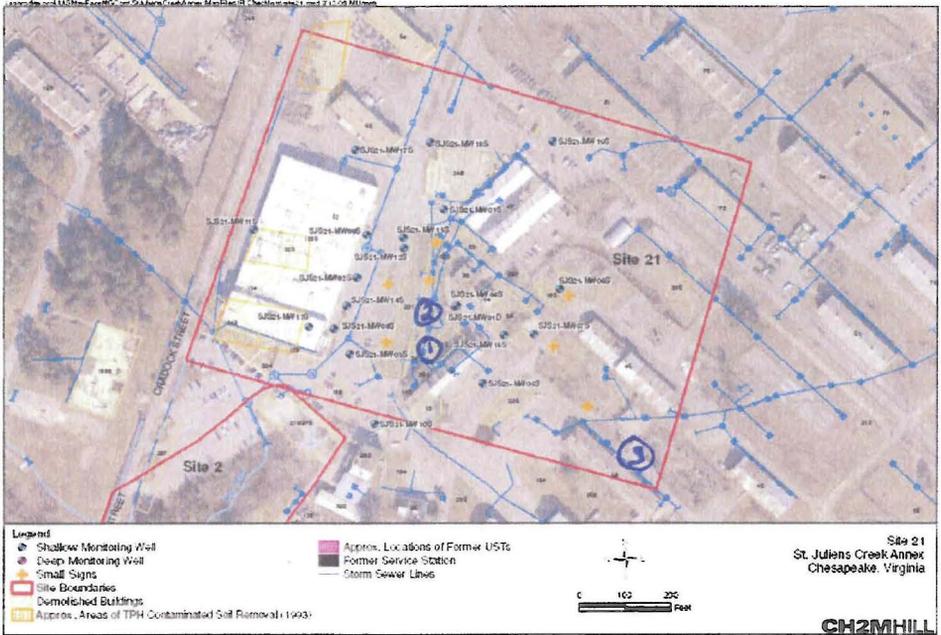
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- 5 Are the signs, in good condition (letters visible, and standing upright)? If no, describe condition of the signs, mark location(s) on map, and notify activity coordinator. Yes No

Inspection performed by: (Print and sign) ADAM FORSHEY *Adam Forshey*
 Date: 3/25/09

Site 21 - Industrial Area
St. Juliens Creek Annex, Chesapeake, Virginia

Description: Site 21 is located in a former industrial area in the central portion of the annex. Buildings at Site 21 were historically used as machine, vehicle, and locomotive maintenance shops; electrical shops; and munitions loading facilities. Outdoor areas at Site 21 were used for equipment and chemical storage. Several of these buildings and/or their surrounding areas were designated as former IR sites. Additionally, a fuel service station was previously located just south of Building 187. The existing buildings and the Site 21 area are currently used for storage and maintenance activities. Building 1556 was constructed in 1992 and is currently used as the MARMC warehouse. Many of the older buildings at the site have been demolished. A storm sewer system runs through the site and drains to a downstream inlet (IR Site 2) to St. Juliens Creek.

The site currently consists of an industrial area, primarily asphalt-paved. Elevated concentrations of TCE are present in shallow groundwater and storm water in the Site 21 vicinity. There are signs posted around the perimeter of the unpaved areas of the site.



Comments: (Provide related question number for each comment)

- ① OPEN EXCAVATION - UTILITY REPAIR - QUESTION 1
- ② ESTOP PROJECT IN PROGRESS - QUESTION 1
- ③ GREEN DRUM LABELED KEROSENE AND WATER DATED: 1/9/09 NOTE: "LEAKING 55 GALLON DRUM OVERPACKED INTO 85 GALLON DRUM" PROPERTY OF PNC NAVFAC - QUESTION 2
- ④ MATERIAL & DEBRIS STAGED THROUGHOUT SITE - ACTIVE INDUSTRIAL AREA.

General Questionnaire

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Purge water from Site 21
January 28, 2007
Do not handle, analysis pending
Contact Tim Reisch, NAVFAC MID LANT, (757) 444-6890
- 3 Is the area free of identifiable concerns, such as, signs of dumping of chemicals or debris, with regards to this site? If no, annotate these concerns in the comments section above, mark location of concern on map, and notify activity coordinator. Yes No

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- 4 Are site monitoring wells, as depicted on the figure, in good condition and appear to be locked? (i.e. damaged protective posts and/or well head/casing) If no, describe condition of the deficient monitoring well(s), mark location of deficient monitoring well(s) Yes No
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Inspection performed by: (Print and sign) ADAM FORSHEY *Adam Forshey*
Date: 3/15/09

